

28.16

PURE WATER



The Roberts Germ Proof
>FILTER<

... MANUFACTURED BY ...

Roberts Manufacturing Co.

62 North Twelfth Street

PHILADELPHIA, PA.

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THE
FRANKLIN
INSTITUTE



The Great Importance of Pure Water.

It is an undisputed fact, that water more or less polluted from surface washings and decomposing animal and vegetable matter, often cause disease and death.

The impurities found in river water, which are the most dangerous to health, are known as disease germs. They belong to the vegetable kingdom, like common mold, and increase in number very rapidly.

Typhoid Fever, Diphtheria, Scarlet Fever, Malaria, Tuberculosis and Cholera are unquestionably produced by these germs.

Kidney Diseases, Catarrh of the Stomach and nearly all stomach Troubles are produced by impure water.

Why We Should Use Filtered Water.

Impure water will sooner or later make you sick. **WHAT ARE WE TO DO?**

Filter all water used; there is no other way. Boiling water makes it flat and insipid and destroys many of its healthful salts. The temperature at which water boils is 212 degrees Far., while many germs require a temperature of 244 to 254 degrees Far. to kill them. And when they are dead, what then? You ought to filter them out.



What Filter to Use

The highest authorities on sanitary matters agree that the best filters are those that use Nature's own process—through natural stone.

In this stone we find the ideal filtering medium. The wonderful formation is such that, while allowing the water to pass freely through the pores, all impurities of every description contained in the water are arrested on the extreme outer surface, from which they can be easily removed, the stone remaining white and pure. The pores never become clogged. If the surface is kept cleaned, this stone will filter as freely and thoroughly after years of service as when new. This stone is unquestionably the very best filtering medium known. It is easily, quickly and thoroughly cleaned. It does not become foul or impregnated with the impurities taken from the water. It is Nature's own way of purifying water. It is efficient, durable and economical. It will render the foulest water sparkling and pure.

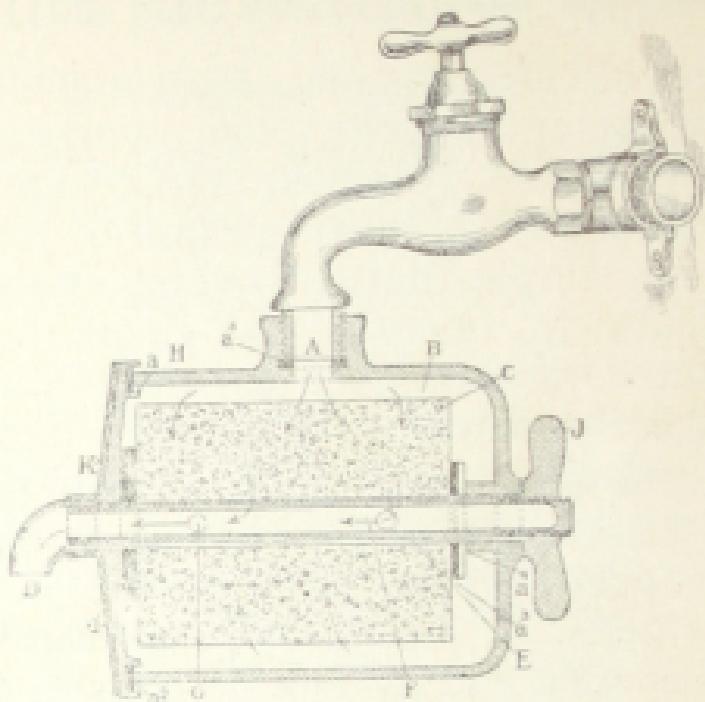
The use of this stone with the advanced mechanical construction of The Roberts Germ Proof Filter makes it unquestionably the very best filter on the market.

Roberts' Germ Proof Filter

Is constructed on correct mechanical and scientific principles; workmanship and material the best. In designing these filters it has been our aim to make them so simple that the average person could attach, operate and clean them. In establishing prices, we have aimed to place the filters within reach of all.

The same quality of stone is used in all sizes. The smallest sizes filter just as thoroughly as the largest. These filters are made in two distinct styles. Class A for regular faucet use, with removable filtering tube for cleaning purposes. Class B, with automatic self-cleaning attachment, whereby the filter is thoroughly cleaned without taking the filter apart. By simply turning a crank the cleaning stone is revolved around the filtering tube, and all the impurities are scoured off and carried away to waste. For promoting health and comfort these filters are unequaled by any other household appliance. For health it is indispensable. In it is used the only perfect filtering medium known—natural stone. It is simple in construction. It will not get out of order. It will last a lifetime. It is inexpensive. It is easily, quickly and thoroughly cleaned. It will fit any spigot, large or small, threaded or plain. It will save many a doctor bill. In buying these filters you take absolutely no risk, for if unsatisfactory, return them and the money will be refunded.

A Most Perfect Filter.



No. 1, Class A.—Attached to threaded faucet.

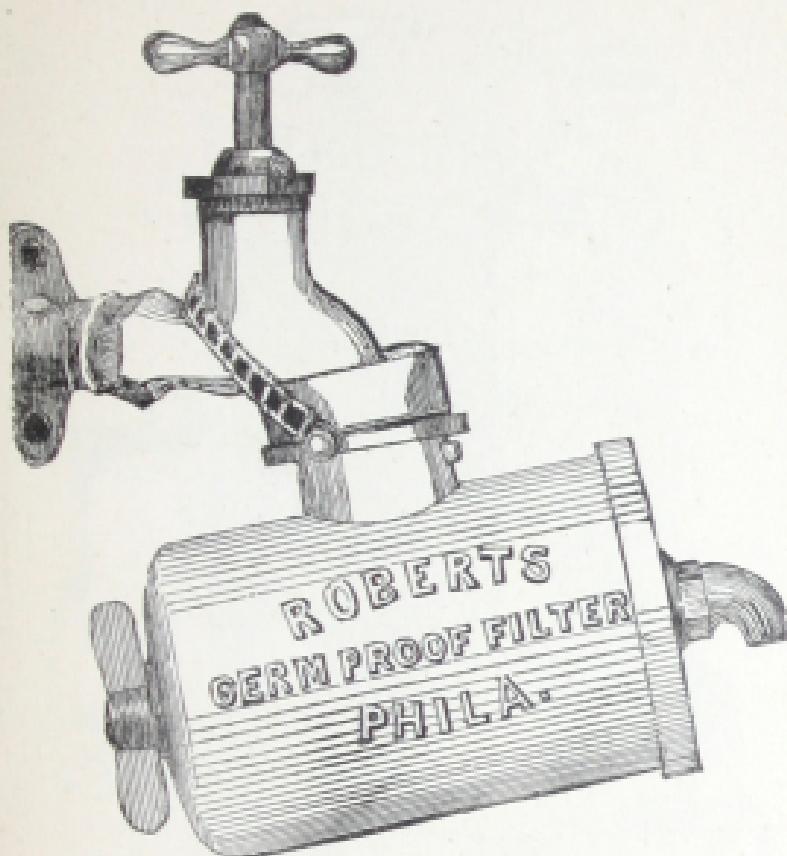
A, connection. B, filter casing. C, natural stone filtering tube. E, pipe through centre of filtering tube, through which the filtered water is carried to outlet D. D, nozzle from which filtered water is drawn. J, thumb nut. a 5, rubber washer. a 1, 2, 3, 4, 5, rubber washers.

To operate, screw up filter on faucet; see that washer a 5 is in place to make tight joint. The water enters at the top, fills the space surrounding the filtering tube, is forced by the pressure from the supply through the pores of the filtering tube, enters pipe E through perforations G and is drawn from nozzle D as indicated by arrow points. All the impurities are caught on the extreme outer surface of the natural stone filtering tube, from which they can be cleaned with the rubbing stone furnished or with stiff brush.

No. 1, *Galvanized Aluminum Finish, \$2.00.*

No. 1, *Nickel Plated, 2.50.*

Easily Attached.



No. 1, Class A.—attached to smooth faucet.

A, connection containing rubber suction valve. C, safety chain. D, ring and hook.

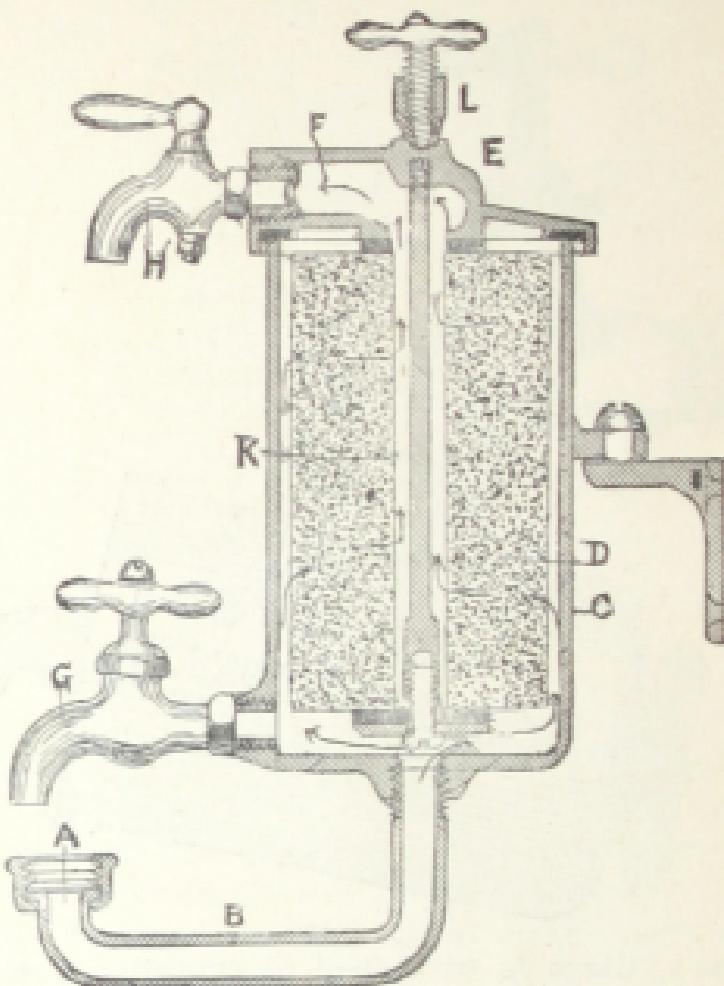
To operate, push connection A well up on the faucet, throw chain C over top and catch on hook on opposite side. To clean, unscrew thumb nut J, withdraw filtering tube from the casing, remove the impurities from tube with rubbing stone furnished or stiff brush. Can be cleaned in one minute. Impossible to devise a more simple or effective filter. A child can attach, operate or clean it. Capacity from 3 to 10 gallons per hour, according to pressure and condition of water. (See note on page 14.)

* LOW IN PRICE. PERFECT IN RESULT.

No. 1, *Galvanized Aluminum Finish*, \$2.00.

No. 1, *Nickel Plated*, 2.50.

A Favorite Size.



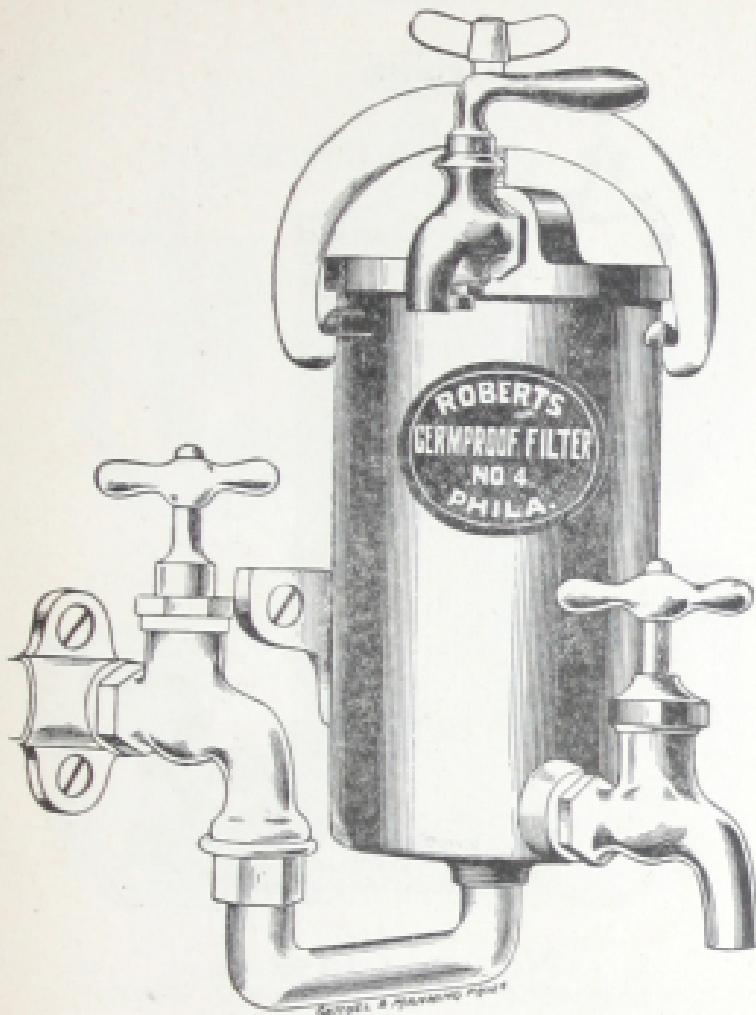
No. 4, Class A, Attached to Threaded Faucet.

A, screw connection to faucet. B, connecting pipe. C, filter chamber. D, natural stone filtering tube. E, cap. F, passage through cap for filtered water. G, unfiltered water outlet. H, filtered water outlet. J, bracket to support weight of filter. K, space occupied by filtered water. L, clamp and set screw.

In operation, the unfiltered water enters the filter through pipe B, fills the space surrounding the natural stone filtering tube D, is forced through the pores of the stone by the pressure of the water in the mains, leaving all impurities on extreme outer surface. The water in being filtered takes the course of the arrow, and is drawn from filter through valve H. When required, unfiltered water may be drawn from spigot G at bottom of filter. Connecting pipe furnished with No. 4 only.

No. 4, Galvanized Aluminum Finish, \$5.50.
No. 4, Nickle Plated, 7.50.

Simple, Efficient and Durable.



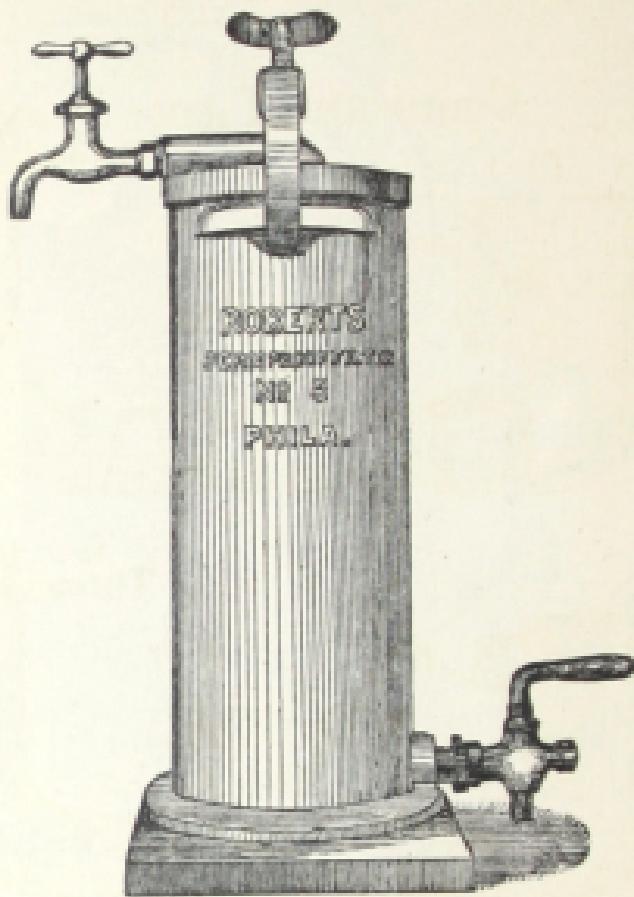
No. 4, Class A, showing attachment over sink.

Easily attached to the ordinary kitchen faucet. An attachment for either a plain or threaded faucet furnished. Can be attached in any place or manner desired with the usual plumbers' attachment, as all threads are standard pipe thread. A bracket at the back supports the weight of the filter. This pattern is made in two sizes, No. 4 and No. 5. No. 5 has about three times the filtering capacity of No. 4. To clean, take off clamp L at the top of filter, withdraw the natural stone filtering tube and clean with rubbing stone furnished or stiff brush. This is a superior and satisfactory household filter at a moderate cost.

No. 4, Class A, Galvanized Aluminum Finish, \$5.50.

No. 4, " Nickel Plated, 7.50.

Plumbers' Connection.



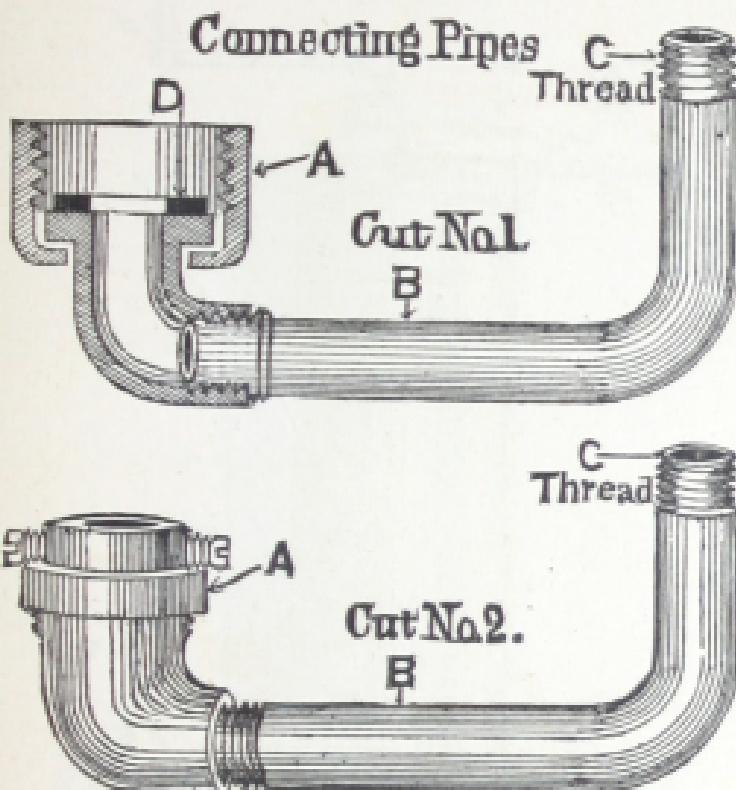
No. 5, Class A.

This filter is connected to supply pipe, but it can also be connected through the bottom, as it has threaded inlet, the same as No. 4.

This number is especially recommended where considerable quantities of pure water are required.

No. 5, Class A, Galvanized Aluminum, \$10.00.
No. 5, Class A, Nickel Plated, 13.50.

Connecting Pipes.

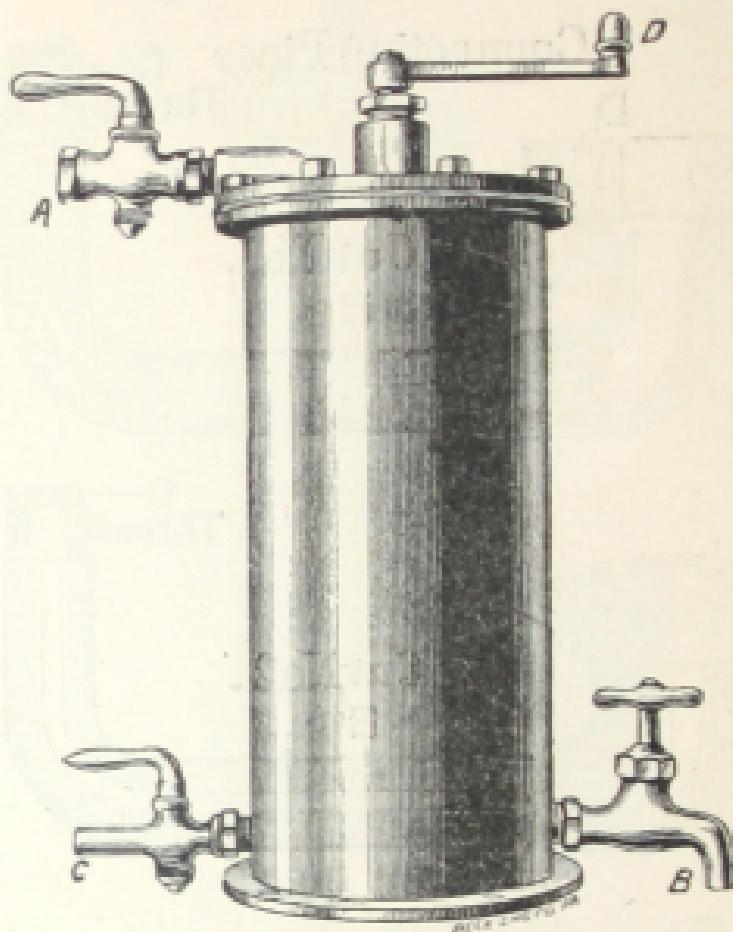


These cuts show connecting pipes used in connecting JNo. 4 and JNo. 5 Filters.

Cut No. 1 is used to connect to threaded faucet; No. 2, to attach to smooth faucet. Any length of pipe can be substituted for pipe B, as conditions may require. This will permit of the filter being attached in any position desired. No. 1 has three-quarter hose coupling thread; No. 2 has rubber suction valve to push up on smooth faucet. Set screws to hold firmly in place.

The Roberts Germ Proof Filter.

PATENTED.



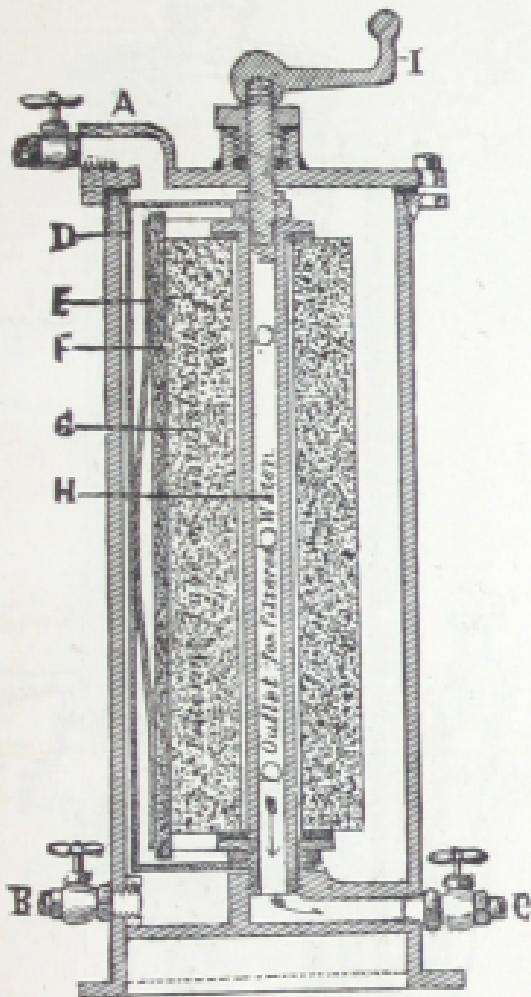
Nos. 15 and 20, Class B.

The Roberts Germ Proof Filter, with automatic self-cleaning attachment. The natural stone filtering tube with stone cleaner so arranged that the filter is thoroughly cleaned without taking it apart. Simply turn a crank at the top of the filter, which revolves the stone cleaner around the filtering tube and scours all accumulations from the surface. The water enters at the top and flows down over the filtering tube and carries all the impurities away through the flush valve as they are scoured from the surface of the filtering tube.

No. 15, Class B, Galvanized Aluminum Finish, \$17.50.
No. 20, Class B, " " " " 27.50.

With Automatic Self-Cleaning Attachment.

PATENTED.

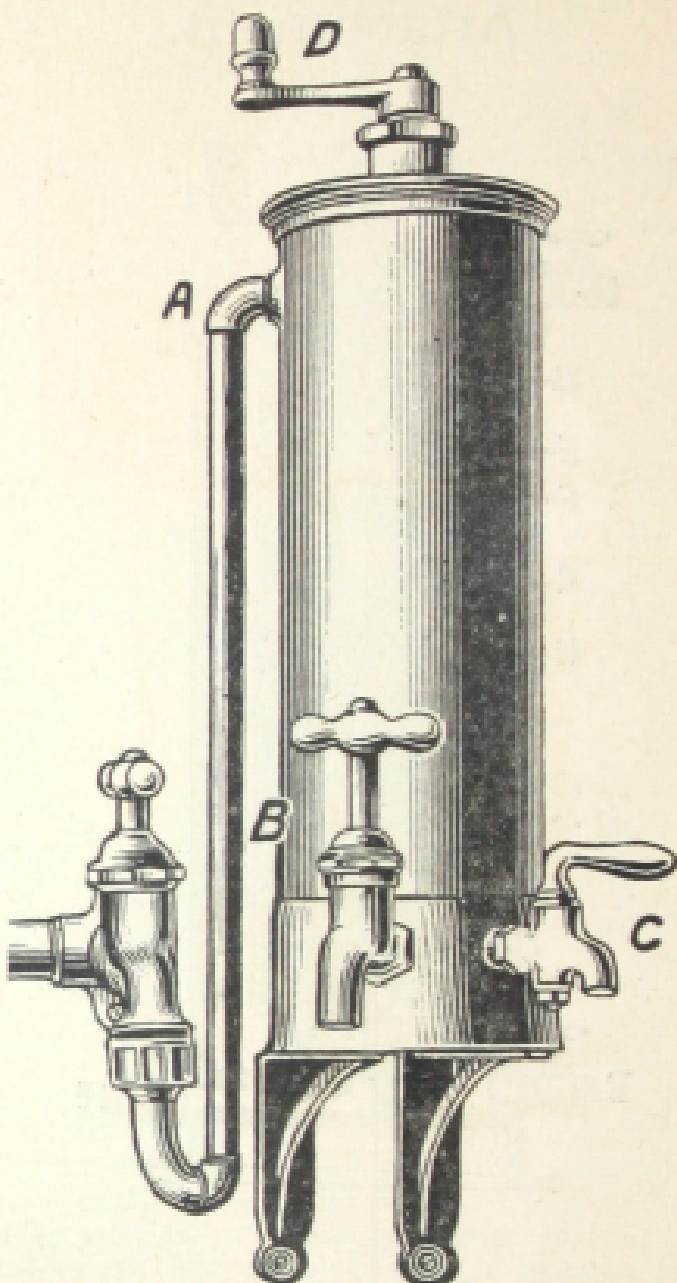


A, inlet for unfiltered water. B, flush valve for cleaning. C, filtered water outlet. D, frame carrying cleaning stone and spring. E, tension spring to keep cleaning stone pressed against filtering tube. F, cleaning stone. G, natural stone filtering tube. H, pipe through center of filtering tube. I, crank to revolve cleaning stone.

In operation the unfiltered water enters at A, surrounds the natural stone filtering tube G, is forced through from the outside to centre and is drawn off through centre pipe H and valve C.

The perfection of water filter. Simple, compact, efficient and durable. A child can operate and clean it.

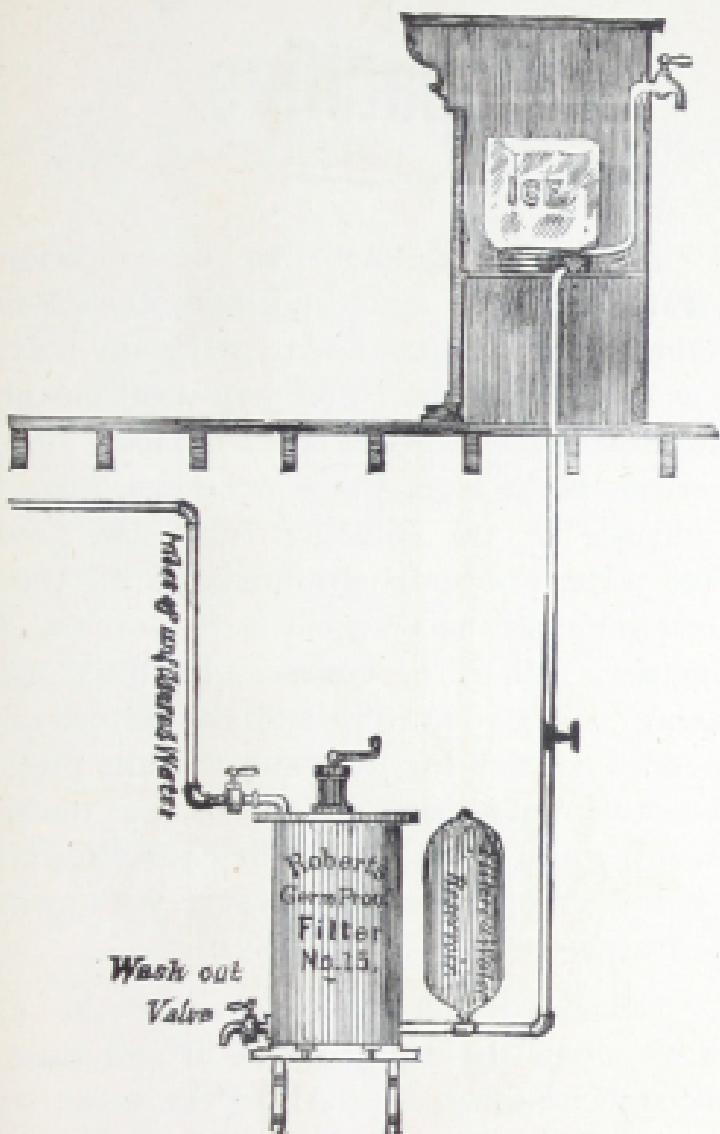
Attached Over a Sink.



Nos. 6 and 7, Class B. This filter can be attached over a sink, like No. 4, by using an extension on connecting pipe B. There are hundreds in satisfactory use attached in this way. This is a most satisfactory filter for offices, banks, restaurants, pantries, kitchen sinks, etc. No. 6, best brass tubing nickel plated and highly polished; No. 7, cast iron galvanized aluminum finish. No. 6 is also furnished with goose neck.

No. 6, Nickel Plated,	\$15.00
No. 6, " with goose neck,	16.75
No. 7, Galvanized Aluminum Finish,	11.00

Attached in Cellar.



Nos. 15 & 20, Class B. Attached to supply pipe in cellar or other convenient place, with the filtered water led through a cooling coil in an ice box and drawn direct from faucet, makes a great saving in ice and labor and avoids contamination of filtered water from melted ice, as in cooler. We advise the use of the reservoir on all filters connected in this manner, whereby a quantity of filtered water is always in reserve, thus providing a rapid flow when filtered water is needed. Six-quart reservoir \$3.00. Prices on application for larger sizes.

For Prices, See Page 15.

Note on Cleaning and Capacities.

WHEN TO CLEAN—As the condition of the water varies so much in different sections of the country, it is impossible to make any positive rule as to the time the Filter will want cleaning, or the capacity in a given space of time. As the impurities taken from the water accumulate on the surface of the filtering tube, the flow of filtered water gradually diminishes until the accumulations become so great as to stop the flow altogether; then, of course, the filter needs cleaning. The quantity and the nature of the suspended matter in the water and the pressure of the same determines at all times the question of cleaning and capacity. The capacities given are based on 40 pounds pressure with average river water.

HOW TO CLEAN—First close the filter cock C, open the waste valve B and turn the crank SLOWLY forward. Allow the waste water to run off for a moment, then again slowly turn the crank as before, meanwhile leaving the cock B open. Repeat this operation until the water becomes as clear as the city supply. Shut off the waste valve when finished cleaning.

IMPORTANT—Always close the filtered water valve when cleaning.

SCHEDULE

... OF ...

SIZES, CAPACITIES AND PRICES.

No.	Class	Size of Filtering Tube.		Capacity. Gallons per Hour.	Finish.	Price.	Renew Stone.
		Diam	Long				
1	A	2½	3½	3 to 8	Galvanized	\$ 2.00	.50
1	A	2½	3½	3 to 8	Nick. Plated	2.50	.50
4	A	3¼	5½	5 to 15	Galvanized	5.50	.85
4	A	3¼	5½	5 to 15	Nick. Plated	7.50	.85
5	A	4½	12	15 to 30	Galvanized	10.00	1.85
6	B	2½	9	10 to 20	Nick. Plated	15.00	1.75
7	B	2½	9	10 to 20	Galvanized	11.00	1.75
10	B	4½	18	25 to 50	Nick. Plated	30.00	3.75
15	B	4½	10	15 to 30	Galvanized	17.50	2.25
20	B	4½	24	30 to 60	Galvanized	27.50	3.75

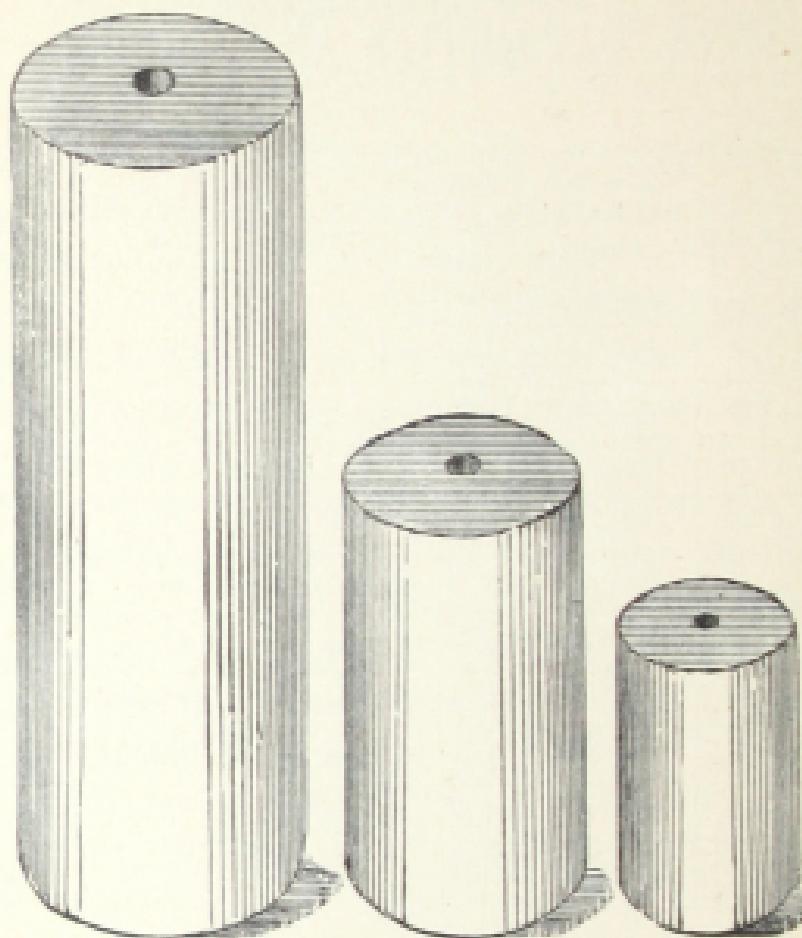


Filters furnished to supply
any desired quantity. Prices on
application.



Relative Sizes of Stones

Used in Class A Filter.



No. 5.

No. 4.

No. 1.

This cut shows the relative sizes of the Natural Stone Filtering Tubes used in Class A, Numbers 1, 4 and 5.

Few of the 15,000 Users in Philadelphia.

Institutions.

Wagner's Institute of Science	Red Cross Hospital
Hahneman Hospital	Woman's Medical College
Poleclynic Hospital	University of Penna., Law Dep't
Philadelphia Libraries	Girard National Bank
Woman's Hospital, West Phila.	Commonwealth Tit. Ins. & Trust
Neff College of Oratory	The Hadleigh Apartment House
House of the Good Shepherd	The Northern Home for Friendless Children
Sisters of St. Francis	
	The Manufacturers' Club

Doctors.

Dr. Thomas Mays	Dr. Matthew Woods
Dr. B. F. R. Clark	Dr. Paul Longaker
Dr. Dudley D. Cook	Dr. Francis Buchanan
Dr. W. H. Griffith	Dr. D. N. Connor
H. M. Vanderslice, D. D. S.	W. H. Taylor, D. D. S.
Dr. D. C. Tizard	Dr. Lambert Ott
Dr. Hunter	Dr. A. Goodwin
Dr. I. J. White	Dr. I. M. Koch
Dr. W. C. Crawford	Dr. R. J. Nicoll
Dr. Wm. F. Morrison	Dr. Wm. T. Chase
Dr. G. P. Weaver	Dr. R. S. Keller
Dr. Pike	Dr. Lopez
Dr. W. M. Welsh	Dr. D. O. Lewis
Dr. H. M. Allen	Dr. A. Parke Good
Dr. A. Fisher	Dr. A. Rainear
Dr. W. H. Steward	Dr. A. Cornog
Dr. W. W. Weaver	Dr. Tomlin
Dr. W. A. Blackwood	Dr. C. Mohr
Dr. A. S. Billstein	Dr. C. A. Holden
Dr. P. V. Guerry	Dr. E. P. Barnard
Dr. E. Hoffman	Dr. W. F. Buckman
Dr. A. C. Abbott	Dr. F. Staudin
Dr. J. L. Curry	Dr. B. Berens
Dr. G. H. Palen	Dr. R. Cheston
Dr. John T. Walker	Dr. J. D. Williams
Dr. H. Tormice	Dr. H. W. Howe
Dr. C. A. Voorhees	Dr. G. A. R. Miller
Dr. Strawbridge	Dr. H. T. Schriener
Dr. C. A. Taylor	Dr. J. Solis Cohen
Dr. G. L. S. Jennison	Dr. J. M. Taylor
Dr. Heilbrun	Dr. C. A. Holder
Dr. Wm. Karsner	Dr. H. A. Hare
Dr. W. O. Browning	Dr. T. Jones
Dr. Bennett	Dr. B. F. Severs

GERM PROOF.

The stone used in The Roberts Germ Proof Filter is the Tripoli Stone, mined Missouri. Dr. Amand Ravold, a distinguished chemist of St. Louis, after a series of tests water filtered through this stone, says:—

“I have the honor to report that the results of the Bacteriological Investigation of the filter placed by you in the Chemists' Laboratory show that in a series of plaitings, made from February 1st to February 20, 1896, absolutely no pathogenic (disease producing) Bacteria were found in the water filtered by it.”

The following testimonials and letters explain themselves:—

DEPARTMENT OF PHYSIOLOGY, OHIO STATE UNIVERSITY BACTERIOLOGICAL REPORT.

Columbus, O., June 13th, 1896.

Gentlemen—I herewith submit reports of examinations made of water filtered through Tripoli Stone Filter.

To the first examination water was used which contained five thousand bacteria per cubic centimetre. This was passed through the filter plates in the usual way. Two plates were made in gelatin and three in agar. Two of the latter were kept in the incubator at 37 degrees C. At the same time control plates were made of the unfiltered water. These latter showed a most luxuriant growth after two days, while the plates made from the filtered water remained sterile for the period of observation—five days. In the next experiment water containing about 250 bacteria per cubic centimetre was used. But this was forced through the filter under pressure. Plates were made in gelatin and agar as before, the agar plates being again kept in the incubator 37 degrees C. After three days, while the plates from the unfiltered water showed a very free growth, those made from the filtered water were sterile. This shows that no germs passed through either with or without pressure.

A. M. BLEILE, M. D.

... *Testimonials* . . .

FRANCIS BUCKMAN, M. D.

Nov. 19, 1896.

1609 South Broad Street.

In my estimation, The Roberts Germ Proof Filter stands without a peer.

D. N. CONNOR, M. D.

Dec. 17, 1896.

1515 Girard Avenue.

A trial of three months has convinced me of the value of The Roberts Germ Proof Filter. It is a Filter that "Filters," and has given entire satisfaction.

WM. F. MORRISON, M. D.

April 1, 1899.

2205 South Third Street.

After a satisfactory test of The Roberts Germ Proof Filter, I am convinced it will do all that is claimed for it, and can speak of it with the highest praise. I deem it an article of necessity in every household.

CHAS. L. DEXTER.

October, 1898.

1441 Walnut Street.

We have used constantly The Roberts Germ Proof Filter for the last two years, and have found it thoroughly satisfactory. Up to this time no repairs have been necessary. We are thoroughly pleased with its work.

MATTHEW WOODS, M. D.

Dec. 10, 1896.

1307 South Broad Street.

For the past four or five months we have had attached to our kitchen hydrant a Roberts Germ Proof Filter. As a consequence, we have had an abundance of water as clear as crystal, this at a time, too, when the Schuylkill was exceedingly muddy because of the up country floods. This has convinced us that the appliance should be in every house in Philadelphia.

DANIEL LONGAKER, M. D.

Nov. 24, 1896.

853 North High Street.

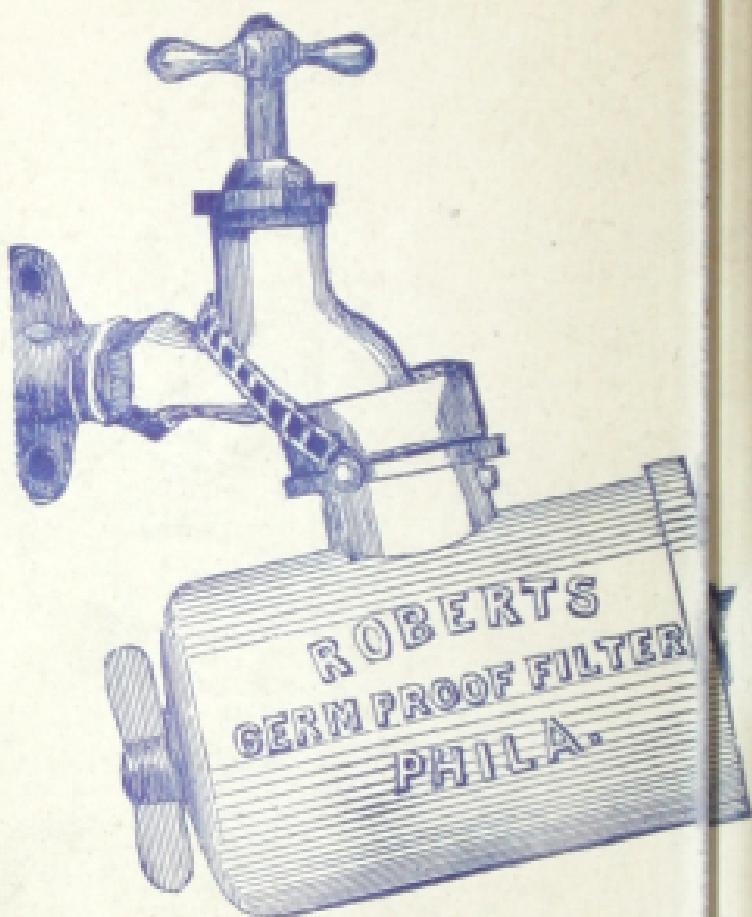
The Roberts Germ Proof Filter which you placed in my house three months ago has given perfect satisfaction. During the last few weeks the mains supplied us with water of an inky tint. At all times, however, the water from the filter was sparkling and clear as crystal. To me this was a crucial test. While municipal filtration is being talked of, we have within our reach an efficient and simple means of securing pure water at a small cost of money and labor.

H. H. GRIFFITH, M. D.

Dec. 1, 1896.

2005 Ridge Avenue.

After two years' constant use of The Roberts Germ Proof Filter, I can recommend it as a safe and satisfactory filter. Cleanliness is a necessity for its working, which makes it proof against breeding disease. I have always been skeptical about filters and have refused them on the ground that it is impossible to effectually and readily "filter the filter," or in other words "clean the cleaner," but The Roberts Filter is easily and quickly cleaned by any person of ordinary intelligence, and successfully takes the dirt out of the water. The absence of chemicals and drugs insures pure water through natural stone, which is Nature's own process. And pure, clear water for drinking and cooking purposes is of inestimable value to every household.



For a Filter drop a card to
J. R. EVANS,
1919 N. Gratz St., Phila.